ALCF Public Data

Data Set: DIM_JOB_COMPOSITE

Source: Argonne Leadership Computing Facility

COLUMN	DATA TYPE	DESCRIPTION	EXAMPLE
JOB_NAME	VARCHAR(64)		207777.mira
COBALT_JOBID	INTEGER	COBALT Job ID	207777
MACHINE_NAME	VARCHAR(64)	Machine Name	mira
AWARD_CATEGORY_NAME	VARCHAR(64)	The award program for the allocation for the job. INCITE, ALCC, DISCRETIONARY	mira
QUEUED_TIMESTAMP	TIMESTAMP	Timestamp when a job entered the queue for a machine	2014-01-28 01:22:44.029342
QUEUED_DATE_ID	INTEGER	DATE_ID of when job entered the queue for a machine	20140128
START_TIMESTAMP	TIMESTAMP	Timestamp when a job started	2014-01-28 13:22:44.029342
START_DATE_ID	INTEGER	DATE_ID of when a job started	20140128
END_TIMESTAMP	TIMESTAMP	Timestamp when a job ended	2014-01-28 17:22:44.029342
END_DATE_ID	INTEGER	DATE_ID of when a job ended	20140128

USERNAME_GENID	VARCHAR(64)	An integer value in place of the user name. Other records with the same value means they have the same user name.	123456789012
PROJECT_NAME_GENID	VARCHAR(64)	An integer value in place of the project name. Other records with the same value means they have the same project name	987654321012
QUEUE_NAME	VARCHAR(64)	Queue Name	prod-short
WALLTIME_SECONDS	DECIMAL(24,4)	The time requested for a job, can be different than runtime	14400
RUNTIME_SECONDS	DECIMAL(24,4)	The elapsed time the job executed.	12590
NODES_USED	DECIMAL(24,2)	Number of nodes used as determined by the scheduler. Can be different than NODES_REQUESTED. If the NODES_REQUESTED is 500, the job could be assigned 512 nodes.	512
NODES_REQUESTED	DECIMAL(24,2)	Number of nodes requested, can be different than the NODES_USED value.	499
CORES_USED	DECIMAL(24,2)	Number of cores used, NODES_USED * CORES PER NODE	8192
CORES_REQUESTED	DECIMAL(24,2)	Number of cores used, CORES_REQUESTED * CORES PER NODE	7984
LOCATION	VARCHAR(2048)	Location on machine, syntax will vary depending on machine	MIR-480C0-7B3F1-512
EXIT_STATUS	INTEGER	Unix process exit status	0
ELIGIBLE_WAIT_SECONDS	INTEGER	The time a job waited in the queue, minus any time where the job was not eligible to run, such as being in a hold.	41256
ELIGIBLE_WAIT_FACTOR	INTEGER	The ELIGIBLE_WAIT_SECONDS over the wallclock time requested.	3

QUEUED_WAIT_SECONDS	INTEGER	The time a job waited in queue. This includes time held by the user and other ineligible times.	43200
QUEUED_WAIT_FACTOR	INTEGER	The QUEUED_WAIT_SECONDS over the wallclock time requested.	3
REQUESTED_CORE_HOURS	DECIMAL(24,4)	Requested core hours	31936
USED_CORE_HOURS	DECIMAL(24,4)	Used core hours	32768
CAPABILITY_USAGE_CORE_HOURS	DECIMAL(26,4)	If job is Capability, the hours are here	0
NONCAPABILITY_USAGE_CORE_HOURS	DECIMAL(26,4)	If job is Noncapability, the hours are here	32768
BUCKETS3_A_USAGE_CORE_HOURS	DECIMAL(26,4)	If job is Bucket A the hours are here	0
BUCKETS3_B_USAGE_CORE_HOURS	DECIMAL(26,4)	If job is Bucket B the hours are here	0
BUCKETS3_C_USAGE_CORE_HOURS	DECIMAL(26,4)	If job is Bucket C the hours are here	32768
MACHINE_PARTITION	VARCHAR(4064)	The value for a mapping of midplanes on the machine.	MIR-08840-3BB71-512
EXIT_CODE	INTEGER	UNIX exit code of the executable for the job.	0
MODE	VARCHAR(64)	The qsub command mode flag. Valid modes on the EAS are c1, c2, c4, c8, c16, c32, c64, script and interactive. Script is a script invocation as it was on the BG/P systems.	c1

		The cN modes correspond to -p N being used with runjob where N is the number of ranks. Interactive is for running an job from the console.	
RESID	INTEGER	Cobalt reservation id, if the job was run within a reservation.	
DATA_LOAD_STATUS	VARCHAR(16)	complete,incomplete	complete
CAPABILITY	VARCHAR(16)	Calculated Capabiltiy	Not capablity
SIZE_BUCKETS3	VARCHAR(64)	Calculated Job Size Bucket	0% <= x < 16.7%
PERCENTILE	VARCHAR(64)	Calculated Percentile Size	0% <= x < 16.7%
NUM_TASKS_SUBBLOCK	INTEGER	Number of subblock tasks: if a job has multiple tasks and multiple tasks fit in a midplane and they run simultaneously.	0
NUM_TASKS_CONSECUTIVE	INTEGER	Number of consecutive tasks: if a job has multiple tasks and they are run one after another, it is consecutive.	0
NUM_TASKS_MULTILOCATION	INTEGER	Number of multilocation tasks. If a job runs multiple tasks simultaneously, it is a multilocation job.	0
NUM_TASKS_SINGLE	INTEGER	Number of single tasks: If a job runs one task, it is a single task job.	1
COBALT_NUM_TASKS	INTEGER	Number of tasks recorded by cobalt	1
IS_SINGLE	SMALLINT	Is Single Task Job	1
IS_CONSECUTIVE	SMALLINT	if a job has multiple tasks and they are run one after another, 1, else 0	0
IS_MULTILOCATION	SMALLINT	If a job runs multiple tasks simultaneously, 1 else 0	0

IS_SUBBLOCK	SMALLINT	If a job has multiple tasks and multiple tasks fit in a midplane and they run simultaneously, 1 else 0	0
IS_SUBBLOCK_ONLY	SMALLINT	If a job has multiple tasks and multiple tasks fit in a midplane and they run simultaneously and tasks are not consecutive, 1 else 0	0
IS_MULTILOCATION_ONLY	SMALLINT	If a job runs multiple tasks simultaneously and not subblock, 1 else 0	0
IS_MULTILOCATION_SUBBLOCK	SMALLINT	If a job runs multiple tasks simultaneously and is subblock, 1 else 0	0
IS_CONSECUTIVE_ONLY	SMALLINT	if a job has multiple tasks and they are run one after another and not subblock or multilocation, 1, else 0	0
IS_SINGLE_ONLY	SMALLINT	If is a Single Task Job and not subblock or consecutive, 1 else 0	0
IS_NO_TASKS	SMALLINT	If job has no tasks, 1 else 0	0
IS_OTHER	SMALLINT	If job is not in any other category	0
OVERBURN_CORE_HOURS	DECIMAL(24,4)	If job is capability and the total hours of all jobs for the allocation up to the timestamp this job ran is greater than the allocation amount then the hours are overburn hours.	0
IS_OVERBURN	SMALLINT	If the job has overburn hours, then 1. A job is overburn if it is capability and the total hours of all jobs to the time this job ran is greater than the allocation amount.	0